

REMARKS

Status of Claims

Claims 41 and 45-47 are in the present application. Claims 1-3, 7, 10-14, 16, 18, and 27-28 are withdrawn pursuant to a restriction requirement. Claims 4-6, 8-9, 15, 17, 19-26, 29-40 and 42-44 are cancelled. Claim 41 is amended to present the claimed subject matter in a preferred form. No new matter is introduced.

Claim Rejections - 35 USC §103(a)

Claims 41-43 & 45-47 are rejected under 35 U.S.C. §103(a), as unpatentable over Curro et al (WO2000/37249), as evidenced by Benson et al (U.S. Patent No. 5,628,097) and Ahr et al. (U.S. Patent No. 4,463,045) in view of Dobrin et al. (U.S. Patent No. 6,383,431).

According to the Examiner, Curro teaches a laminate having a bonded carded extensible apertured nonwoven web and an elastic apertured film, in which the surface energy of the nonwoven web is lower than that of the film and the film is exposed through the apertures in the nonwoven web. The Examiner further states that the apertures in the nonwoven web can be created by stretching, as taught by Benson which is incorporated by Curro. Because neither Curro nor Benson teaches stretching of a laminate, the Examiner relies upon the teachings of Dobrin and concludes that it would be obvious to stretch the laminate to create the apertures in the nonwoven layer of Curro. The Examiner states that a skilled artisan would be motivated to stretch the laminate, as opposed to the nonwoven layer alone, to further reduce the basis weight and costs as taught by Dobrin. The rejection is traversed.

Claim 41 is amended to recite a vacuum formed and vacuum laminated composite having an extensible bonded carded nonwoven fibrous web vacuum laminated to a vacuum formed apertured film to form a unified structure, which has been activation stretched to create access areas in the nonwoven fibrous web and expose the surface of the film.

In contrast to the claimed invention, Curro specifically teaches that the apertures are created in the fibrous web prior to laminating the fibrous web to the film. For example, on pages 6-7, Curro specifically distinguishes between the nonwoven web 210 and the “precursor” web and describes the “transformation” of the precursor web into the nonwoven web 210 by aperturing the precursor web. In the paragraph bridging pages 6-7, Curro specifically states that

it is “after transformation” that the precursor web has the apertured and becomes web 210.

Later, at page 10, Curro teaches that the web is first apertured, and then treated to render the web more hydrophobic. The aperturing and treatment of the web must necessarily occur before bonding the nonwoven web to the film. Otherwise, treatment of the fibrous web would also result in treatment of the underlying film, and would thus destroy the surface energy gradient that Curro requires. Curro confirms this at pages 14-15, where Curro teaches that the nonwoven web 210 (which Curro earlier defined as being apertured) is unwound, treated, and then bonded to the film layer.

The Examiner’s position that it would be obvious to first laminate the fibrous layer to the film and then stretch the nonwoven to create the apertures is thus directly contrary to the teachings of Curro. The fact that Curro teaches away from the proposed modification is significant factor weighing against a determination of obviousness.

The Benson reference is relied upon by the Examiner to provide the apertures in the nonwoven as a result of activation stretching. However, Benson requires that the nonwoven be weakened prior to activation stretching in order to form the apertures. The weakening step of Benson could conceivably take place before the nonwoven is laminated to the film or after, but in any event before activation stretching. The Examiner’s rejection does not articulate which of the two sequences is being applied in the rejection.

If the nonwoven was pre-weakened as taught by Benson, and then laminated to the film, the film layer would reinforce the weakened areas and they would no longer be “weakened” and would not be expected to form apertures during activation of the laminate. If the nonwoven was first laminated to the film, it is not apparent how one could apply the teachings of Benson to “pre-weaken” the nonwoven without also adversely affecting the underlying film layer. It is also not at all apparent that subsequent activation of the laminate would create apertures in the nonwoven layer of the laminate as required by Curro.

The claims under prosecution specifically recite a laminate and state that the laminate “has been activation stretched to create access areas in the nonwoven fibrous web, wherein the surface of the film is exposed through said access areas.” The Office rejection is based on an assemblage of process steps from different prior art references, and not to the material itself. There is no basis in the prior art for the Examiner’s conclusion that following the process steps

would result in a laminate that meets the features of claim 41. Instead, the Examiner merely assumes that by pre-weakening the nonwoven and then laminating it to a film and then activating (or alternatively, laminating, then pre-weakening, and then activating) will produce the claimed invention. But that is only an assumption and appears to be based on the teachings of the current application. Nothing in the references themselves indicates that the Benson process of creating apertures in the nonwoven would be realized if the activation step occurred after the nonwoven was laminated to a film. In addition, one skilled in the art would not expect the Benson process to work once the nonwoven is laminated to a film, for the simple reason that the film would reinforce the nonwoven fibers and thus prevent the formation of apertures desired by both Benson and Curro.

Thus, not only would the skilled artisan not have an expectation of success by following the Examiner's reasoning, but would actually have an expectation of failure. Whatever motivation the skilled artisan might have from Dobrin to reduce basis weight, no skilled worker is going to be motivated to follow a process that will not result in the desired result, regardless of any other "benefits" that might be obtained. For these reasons, Applicant submits that in following the rejection relied upon by the Examiner, one skilled in the art would not obtain the claimed laminate. Nor would one obtain the laminate taught by Curro. And, it would not have been obvious to modify the teachings of Curro to activate the laminate instead of activating the nonwoven alone because it would result in a materially different product.

The Examiner states that Curro does not expressly teach vacuum aperturing but incorporates Ahr by reference and Ahr teaches vacuum aperturing. As described previously, Curro does not teach the composite of claim 41. Ahr does not fill the gaps in Curro's disclosure. At best, the combination requires the lamination of the nonwoven to the film and simultaneous aperturing of the film, followed by activation of the laminate. The combination has the same deficiencies as those demonstrated above regarding claim 41. There is no indication that the process would in fact produce an apertured nonwoven web laminated to an apertured vacuum formed film because there is no basis to conclude that the Benson process works after lamination to a film.

The Office admits that Curro does not teach vacuum lamination of the unified structure but contends that Dobrin teaches vacuum lamination of an apertured film to a nonwoven. In fact,

Dobrin does not teach lamination of an apertured film to a nonwoven. Dobrin teaches lamination of a filled precursor film to a modified nonwoven then stretching the laminate to generate micropores in the film. No apertures in the film are created by the use of vacuum and thus it is not a vacuum formed film. In addition, the film in Dobrin is not apertured at the time it is laminated to the nonwoven. The micropores in the Dobrin film are not formed until after the laminate is made and stretched.

Claims 45-47 are directly or indirectly dependent from claim 41. Thus, these claims are not *prima facie* obvious over Curro.

Claims 41-43 & 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutson et al. (U.S. Pub. No. 2003/0105446) in view of Curro et al. (WO 2000/37249). The rejection is respectfully traversed.

Hutson discloses a composite comprising an elastic layer sandwiched with two non-elastic nonwoven materials. Hutson teaches activation stretching the composite to a point of breaking the fibers in the nonwoven web such that the elasticity of the laminate is substantially that of the film alone. Nowhere does Hutson disclose an extensible bonded carded nonwoven fibrous web recited in the claims. Also, Hutson clearly shows in Figure 1 that the broken fibers in the nonwoven are disposed in registration with the apertures. Thus, Hutson lacks any disclosure that the film surface is exposed below the broken fibers of the nonwoven.

Moreover, Hutson uses an elastic film. The modification of Hutson proposed by the Examiner would require the substitution of the elastic film of Hutson for the inelastic film used in Curro. Elastic films have a greater ability to stretch as compared to inelastic film. Thus, by making the proposed substitution, the skilled artisan would not expect the film to survive the Hutson process and would expect the inelastic film to break along with the fibers of the nonwoven web. Not only would such a modification not produce the laminate desired by Curro or the present claims, it would produce a broken web that has no utility to anyone. Making a modification that results in a useless product cannot be considered an “obvious” modification. Therefore, claim 41 is not obvious over Hutson and Curro.

Claims 45-47 are directly or indirectly dependent from claim 41. Thus, these claims are not *prima facie* obvious over Hutson in view of Curro.

Conclusion

For the reasons stated above, claims 41 and 45-47 define patentable subject matter and the references of record do not teach, disclose or suggest the composite recited therein.

Reconsideration and withdrawal of all claim objections and claim rejections is solicited, as is a notice of allowance with respect to the claims under prosecution.

Upon the indication of allowable subject matter, Applicant will seek to rejoin the withdrawn claims and amend those claims to conform in scope to the allowed claims.

Respectfully Solicited,



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